

## REMARKS

### I. Introduction

Applicants wish to thank Examiner Blessing Fubara for participating in the interview with Applicant and Applicants representatives conducted on November 25, 2008. A summary of the substance of the interview was provided in the Interview Summary Record dated November 25, 2008.

Claims 1, 2 and 4-24 are currently pending. Claims 7 and 10-15 were withdrawn by the Examiner following a Restriction Requirement. Claim 1 has been amended to recite the elements of cancelled claim 3. Claim 16 has been amended, support for which can be found throughout the specification, for example in paragraph [043]. No new matter has been added. Entry of this amendment is respectfully requested.

### II. Claim Rejections Under 35 U.S.C. § 112, second paragraph

Claims 3, 16, 20 and 21 were rejected under 35 U.S.C. § 112, second paragraph as allegedly being indefinite for failing to point out and distinctly claim the subject matter regarded as the invention. Specifically, the Examiner alleges that term “elastin-like polypeptides” in claim 3 is not described. Applicants respectfully disagree, and have submitted herein a declaration under 37 CFR 1.132 by inventor Tao Lu Lowe Ph.D which states that the term “elastin-like polypeptides” is a term of art, the metes of bound would be known to a person having ordinary skill in the art. Furthermore, Exhibit A, which accompanies the declaration, provides evidence of the use of the term “elastin-like polypeptides.” As such, it is respectfully submitted that the rejection is obviated.

Furthermore, Applicants respectfully submit that claim 16 has been amended, thereby obviating the rejection of claim 16, 20 and 21. Therefore, withdrawal of the rejections under 35 U.S.C. § 112, second paragraph is respectfully requested.

### **III. Claim Rejections Under 35 U.S.C. § 102(b)**

Claims 1, 2, 4-6, 8, 9, 16-21 and 23 were rejected under 35 U.S.C. § 102(b) as allegedly being anticipated by Hennink WO 98/00170. Applicants respectfully disagree. However, claim 1 has been amended to recite the elements of cancelled claim 3, and now recites,

“A polymeric material comprising a smart segment and a biodegradable segment, wherein the biodegradable segment includes a hydrophobic segment and a hydrophilic segment, wherein the smart segment comprises poly(N-isopropylacrylamide), poly(N-alkylacrylamide), poly(N-n-propylacrylamide), poly(N-isopropylmethacrylamide), poly(ethylene oxide)-poly(propylene oxide)-poly(ethylene oxide), or elastin-like polypeptides.”

Anticipation under 35 U.S.C. § 102 requires that “each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference.”

*Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ 2d 1051, 1053 (Fed Cir. 1987). At a minimum, the cited prior art does not disclose (expressly or inherently), “wherein the smart segment comprises poly(N-isopropylacrylamide), poly(N-alkylacrylamide), poly(N-n-propylacrylamide), poly(N-isopropylmethacrylamide), poly(ethylene oxide)-poly(propylene oxide)-poly(ethylene oxide), or elastin-like polypeptides.”

As noted on page 5 of the Office Action, Hennink fails to disclose a smart segment comprising poly(N-isopropylacrylamide), poly(N-alkylacrylamide), poly(N-n-propylacrylamide), poly(N-isopropylmethacrylamide), poly(ethylene oxide)-poly(propylene oxide)-poly(ethylene oxide), or elastin-like polypeptides.

Accordingly, it is respectfully submitted that claim 1 is allowable over the cited prior art reference.

Furthermore, claims 2, 4-6, 8, 9, 16-21 and 23 depend from and further define the subject matter of claim 1 and therefore are also allowable.

#### IV. Claim Rejections Under 35 U.S.C. § 103(a)

Claims 1, 3, 22 and 24 were rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Hennink in view of Marchant, U.S. 2002/0068087. Applicant respectfully traverse this rejection.

As discussed above, in reference to the rejection under 35 U.S.C. § 102(b), Hennink does not teach or suggest the use of a smart “wherein the smart segment comprises poly(N-isopropylacrylamide), poly(N-alkylacrylamide), poly(N-n-propylacrylamide), poly(N-isopropylmethacrylamide), poly(ethylene oxide)-poly(propylene oxide)-poly(ethylene oxide), or elastin-like polypeptides.”

Moreover, Marchant fails to cure the deficiencies of Hennink because Marchant not only fails to teach or suggest the use of smart segments as recited in claim 1, but specifically **teaches away** from using poly N-isopropylacrylamide. Marchant is directed to bioadhesive hydrogels and only refers to hydrogels of poly N-isopropylacrylamide in the context of poly N-isopropylacrylamide as not having the desired bioadhesive properties and therefore being undesirable for use as a bioadhesive hydrogel. See Marchant paragraph [0014].

As such, it would not be obvious to one having ordinary skill in the art to replace the HEMA of Hennink with poly N-isopropylacrylamide as discussed in Marchant, because Marchant teaches away from using poly N-isopropylacrylamide.

Thus, there is no articulated reasoning with some viable rational underpinning to support the legal conclusion of obviousness.

Accordingly, claim 1 is allowable over the cited prior art references.

Furthermore, claims 2, 4-6, 8, 9 and 16-24 depend from and further define the subject matter of claim 1 and therefore are also allowable.

**V. Conclusion**

In view of the above amendments and remarks, Applicants submit that this application is in condition for allowance. If there are any questions regarding this Amendment or the application in general, a telephone call to the undersigned would be appreciated to expedite the prosecution of the application.

To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account 500417 and please credit any excess fees to such deposit account.

Respectfully submitted,

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